

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A drive method of an EL display apparatus that comprises a display screen in which a plurality of pixels each of which includes an EL element are formed in a matrix and a switching element which turns on/off a current that flows in the EL element, the drive method comprising:

weighting image data with respect to a color of respective of the plurality of pixels, said image data generating a signal which is to be impressed to the respective pixels of the EL display apparatus,

aggregating said weighted image data, and

when results of said aggregating of said weighted image data are larger than a predetermined value,

suppressing an amount of current that flows in the EL element by shortening a time period to pass the current during one frame period by controlling said switching element, displaying a non-display area on the display screen of the EL display apparatus, and shifting the non-display area on the display screen synchronizing with said one frame period.

Claims 2-3 (Canceled).

Claim 4 (Currently Amended): An EL display apparatus including a display screen in which a plurality of pixels each of which includes an EL element are formed in a matrix, the EL display apparatus comprising:

a switching element which turns on/off a current that flows in the EL element;

a gate driver circuit that drives a gate signal line selecting a line of the pixels;

an aggregation circuit configured to weight image data with respect to color of respective of the plurality of pixels, said image data generating a signal which is to be impressed to the respective pixels of the EL display apparatus, and to aggregate the weighted image data; and

a control circuit that controls a timing or a period to generate a start pulse signal for the gate driver circuit based on the aggregated image data, wherein

the gate driver circuit drives the gate signal line according to the start pulse signal, ~~so as to generate~~ generates a non-display area on the display screen by controlling said switching element, and shifts the non-display area in a scanning direction of the gate driver circuit.

Claim 5 (Withdrawn): A control method of an EL display apparatus that controls brightness of a display screen using a ratio between non-display and display areas on the display screen, the control method comprising:

generating a delay time when changing the ratio between the non-display and display areas on the display screen from a first ratio to a second ratio.

Claim 6 (Withdrawn): The drive method of an EL display apparatus according to claim 5, wherein the ratio of the display area occupied on the display screen is equal to or a larger than 1/16 and smaller than 1/1, and

the display area sequentially shifts on the display screen.

Claims 7-14 (Canceled).

Claim 15 (Previously Presented): The drive method of an EL display apparatus according to Claim 1, wherein:

said EL display apparatus comprises a gate driver circuit that drives a gate signal line selecting a line of the pixels,

the non-display area is generated in a belt-like form on the display screen of the EL display apparatus by the gate driving circuit driving the gate signal line; and

the non-display area is shifted scanning direction of the gate driver circuit.

Claim 16 (Withdrawn): The drive method of an EL display apparatus according to Claim 1, further comprising:

detecting brightness of outside the EL display apparatus;

generating a belt-like non-display area and a belt-like display area; and

changing or adjusting a ratio of the belt-like non-display area and the belt-like display area according to an output value obtained by the detecting.

Claim 17 (Previously Presented): The EL display apparatus according to Claim 4, further comprising:

a selection circuit formed on a substrate on which the EL elements are formed; and

a source driver circuit, wherein

the source driver circuit outputs a video signal of a first color or a video signal of a second color from a signal output terminal,

the substrate includes source signal lines to supply the video signals of the source driver circuit to the EL elements,

the selection circuit includes an input terminal to connect to the signal output terminal of the source driver circuit and a selection output terminal to connect to the source signal line,

the selection circuit includes a plurality of combinations of one output terminal and a plurality of selection output terminals configured to connect to the one output terminal, and

the selection circuit applies a video signal of the source driver circuit input to the input terminal of the selection circuit to the source signal line connected to the one or plural of selection output terminals that are selected from the plurality of the selection output terminals.

Claim 18 (Previously Presented): The EL display apparatus according to Claim 4, further comprising

a source driver circuit that applies a gradation signal to the EL elements, wherein the source driver circuit includes a voltage output circuit and a current output circuit.

Claim 19 (Withdrawn): A drive method of an EL display apparatus that comprises a display screen in which an EL element is provided in each pixel formed in a matrix, the drive method comprising:

obtaining a power consumption consumed in the display screen or a data corresponding to the power consumption;

obtaining at least one of a ratio between non-display and display areas on the display screen and a number of divisions of the display area or that of the non-display area.

Claim 20 (Withdrawn): The drive method of an EL display apparatus according to Claim 19, wherein

the obtaining the power consumption or the data is performed by calculation after gamma-conversion of an input video signal.

Claim 21 (Withdrawn): The drive method of an EL display apparatus according to Claim 19, wherein

the power consumption or the data is obtained from an input video signal to the EL display apparatus.

Claim 22 (Withdrawn): The drive method of an EL display apparatus according to Claim 19, wherein

the display area and the non-display area are respectively formed as a belt-like area, and

both of the display and non-display areas are shifted in the vertical direction on the display screen synchronized with a frame frequency.

Claim 23 (Withdrawn): The drive method of an EL display apparatus according to Claim 19, further comprising:

detecting brightness of outside the EL display apparatus;

generating a belt-like non-display area and a belt-like display area as the non-display and display areas; and

changing or adjusting the ratio of the belt-like non-display area and the belt-like display area according to an output value obtained by the detecting.

Claim 24 (Withdrawn): An EL display apparatus that has a display screen in which an EL element is provided in each pixel formed in a matrix, comprising:

a calculation circuit that obtains a power consumption consumed in the display screen or a data corresponding to the power consumption by a processing of weighting at least a video signal of a first color and a video signal of a second color; and

a display control circuit that controls to vary at least one of a ratio between non-display and display areas on the display screen and a number of divisions of the display area or that of the non-display area.

Claim 25 (Withdrawn): The EL display apparatus according to Claim 24, further comprising:

a selection circuit formed on a substrate on which the EL elements are formed, and
a source driver circuit, wherein

the source driver circuit outputs a video signal of a first color or a video signal of a second color from a signal output terminal,

the substrate includes source signal lines to supply the video signals of the source driver circuit to the EL elements,

the selection circuit includes an input terminal to connect to the signal output terminal of the source driver circuit and a selection output terminal to connect to the source signal line,

the selection circuit includes a plurality of combinations of one output terminal and a plurality of selection output terminals configured to connect to the one output terminal, and

the selection circuit applies a video signal of the source driver circuit input to the input terminal of the selection circuit to the source signal line connected to the one or plural of selection output terminals that are selected from the plurality of the selection output terminals.

Claim 26 (Withdrawn): The EL display apparatus according to Claim 24, further comprising:

a source driver circuit that applies a gradation signal to the EL elements, wherein
the source driver circuit includes a voltage output circuit and a current output circuit.

Claim 27 (Withdrawn): The EL display apparatus according to Claim 24, wherein the source driver circuit is an IC chip comprising a semiconductor, and the selection circuit is formed on the substrate by poly-silicon processing.

Claim 28 (Withdrawn): The EL display apparatus according to Claim 24, wherein a drive transistor to supply current the EL element and a switch transistor formed on path of the current are provided in each of pixels, and the current is controlled by switching on and off a switch transistor to generate belt-like non-display and display areas as the non-display and display areas on the display screen.

Claims 29-30 (Canceled).

Claim 31 (Previously Presented): The EL display apparatus according to claim 4, wherein brightness of the display screen is controlled by varying a ratio of the non-display area to the display screen.

Claim 32 (Previously Presented): The EL display apparatus according to claim 4, wherein the shifting the non-display area in the display screen is performed synchronizing with one frame period.

Claim 33 (Canceled).

Claim 34 (Previously Presented): The EL display apparatus according to claim 4,
wherein

in the display screen, the plurality of pixels having a plurality of colors are formed in
a matrix, and

an area of an element of one color of the plurality of colors is different from an area of
an element of the other colors.

Claim 35 (Previously Presented): The EL display apparatus according to claim 4,
wherein the non-display area is divided into a plurality of parts.

Claim 36 (New): The drive method of an EL display apparatus according to Claim 1,
wherein: a driver transistor for supplying current to said EL element is formed in said pixel of
said EL display apparatus, and
said driver transistor is a P-channel transistor.

Claim 37 (New): The drive method of an EL display apparatus according to Claim 1,
wherein, said EL display apparatus further comprises;
a source driver circuit that applies an image signal and,
a switch circuit arranged between an output terminal of said source driver
circuit and source signal lines which said pixel is connected with, and
wherein, said switch circuit impresses image signal which is output from said output
terminal of said source driver circuit to selected source signal line.

Claim 38 (New): The EL display apparatus according to Claim 4, wherein: a driver transistor for supplying current to said EL element is formed in said pixel of said EL display apparatus, and

said driver transistor is a P-channel transistor.

Claim 39 (New): The EL display apparatus according to Claim 4, further comprising:
a source driver circuit that applies an image signal and,
a switch circuit arranged between an output terminal of said source driver circuit and source signal lines which said pixel is connected with, and

wherein, said switch circuit impresses image signal which is output from said output terminal of said source driver circuit to selected source signal line.

Claim 40 (New): A drive method of an EL display apparatus that comprises a display screen in which a plurality of pixels each of which includes an EL element are formed in a matrix, the drive method comprising:

weighting image data with respect to a color of respective of the plurality of pixels, said image data generating a signal which is to be impressed to the respective pixels of the EL display apparatus,

aggregating said weighted image data, and

when said results of said aggregating of said weighted image data are defined as A and B respectively and predetermined value is defined as C, in the case that a relation of $C \geq A$, $C \geq B$ and $A > B$ is satisfied,

a maximum value of current that flows in the EL element of said pixel or a maximum value of emission brightness of the EL element of said pixel when the result is B is set more greatly than a maximum value of current that flows in the EL element of said pixel

or a maximum value of emission brightness of the EL element of said pixel when the result is A.

Claim 41 (New): The drive method of an EL display apparatus according to Claim 40, wherein:

said maximum value of current that flows in the EL element of said pixel or said maximum value of emission brightness of the EL element of said pixel is varied based on said results of said aggregating of said weighted image data.

Claim 42 (New): The drive method of an EL display apparatus according to Claim 40, wherein:

a time period for varying said maximum value of current that flows in the EL element of said pixel or said maximum value of emission brightness of the EL element of said pixel when the result is A to said maximum value of current that flows in the EL element of said pixel or said maximum value of emission brightness of the EL element of said pixel when the result is B is a plurality of frame periods.

Claim 43 (New): The drive method of an EL display apparatus according to Claim 40, wherein:

displaying a non-display area on the display screen of the EL display apparatus, and shifting the non-display area on the display screen synchronizing with said one frame period by impressing a first voltage for supplying current to said EL element or a second voltage for intercepting the current flowing in said EL element to wiring that composes route where current of said EL element flows.

Claim 44 (New): The drive method of an EL display apparatus according to Claim 40, wherein:

a driver transistor for supplying current to said EL element is formed in said pixel of said EL display apparatus, and
said driver transistor is a P-channel transistor.

Claim 45 (New): The drive method of an EL display apparatus according to Claim 40, wherein, said EL display apparatus further comprises;

a source driver circuit that applies an image signal and,
a switch circuit arranged between an output terminal of said source driver circuit and source signal lines which said pixel is connected with, and
wherein, said switch circuit impresses image signal which is output from said output terminal of said source driver circuit to selected source signal line.